Web Enabled Navy (WEN)

TF Web

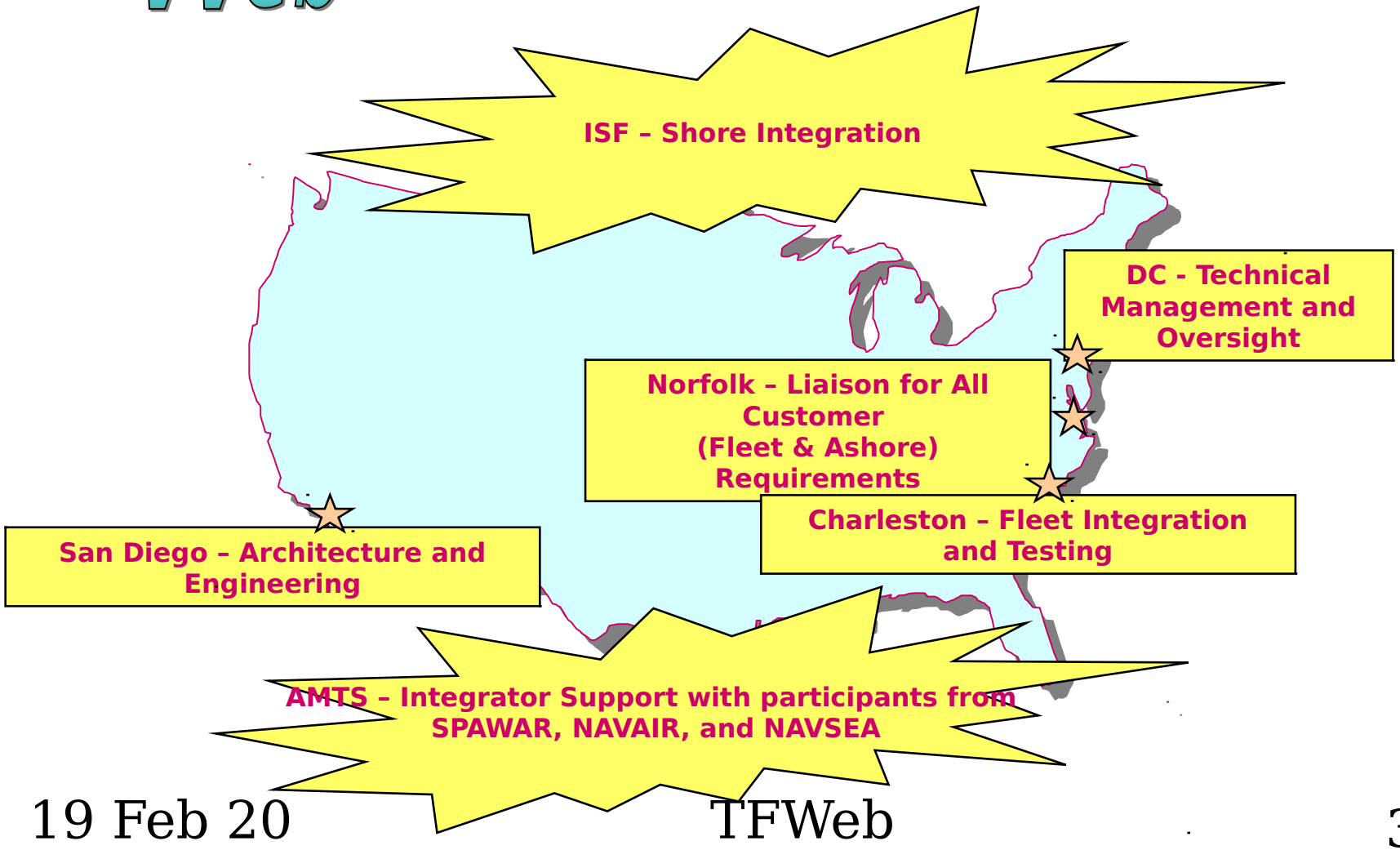
Operational and business processes are conducted worldwide via interconnected and interoperable web-based IT systems.

Task Force Web

- NAVADMIN 077/01 3 April 2001 chartered TFW to lead the web transition effort by:
  - Establishing and maintaining the web architectural blueprint.
  - Coordinating IT systems architectures.
  - Providing recommendations to CNO on Web Enablement technologies.
  - Reviewing Operational Requirements Documents for Web Enablement.
  - Working with SYSCOMS and PEOS in prioritizing and migrating existing systems.

TFW Team

TFWeb


ISF – Shore Integration
DC - Technical Management and Oversight
Norfolk – Liaison for All Customer (Fleet & Ashore) Requirements
Charleston – Fleet Integration and Testing
San Diego – Architecture and Engineering
AMTS – Integrator Support with participants from SPAWAR, NAVAIR, and NAVSEA

TFWeb

How Do We Get There?

- Current state – no enterprise approach
  - Each ship and Echelon II is on their own
- IT-21 (Afloat) and NMCI (Ashore) both bring some, but not all, components to the enterprise solution
- Need to make concurrent changes to IT-21 and NMCI and converge paths
  - Engineering for enterprise architecture
  - Hardware, software infrastructure changes
  - Migration of applications to web services

What NMCI and IT-21 Bring to the WEN

	NMCI	IT-21
Infrastructure	• Ashore infrastructure and seat services	• Afloat infrastructure and connectivity
Portal	• Basic portal • Application specific access • NMCI services only	• No portal • No application integration • Multiple stand alone networks and workstations
User Authentication Services	• NMCI users only	• IT-21 users only

Architectural Framework

TFWeb

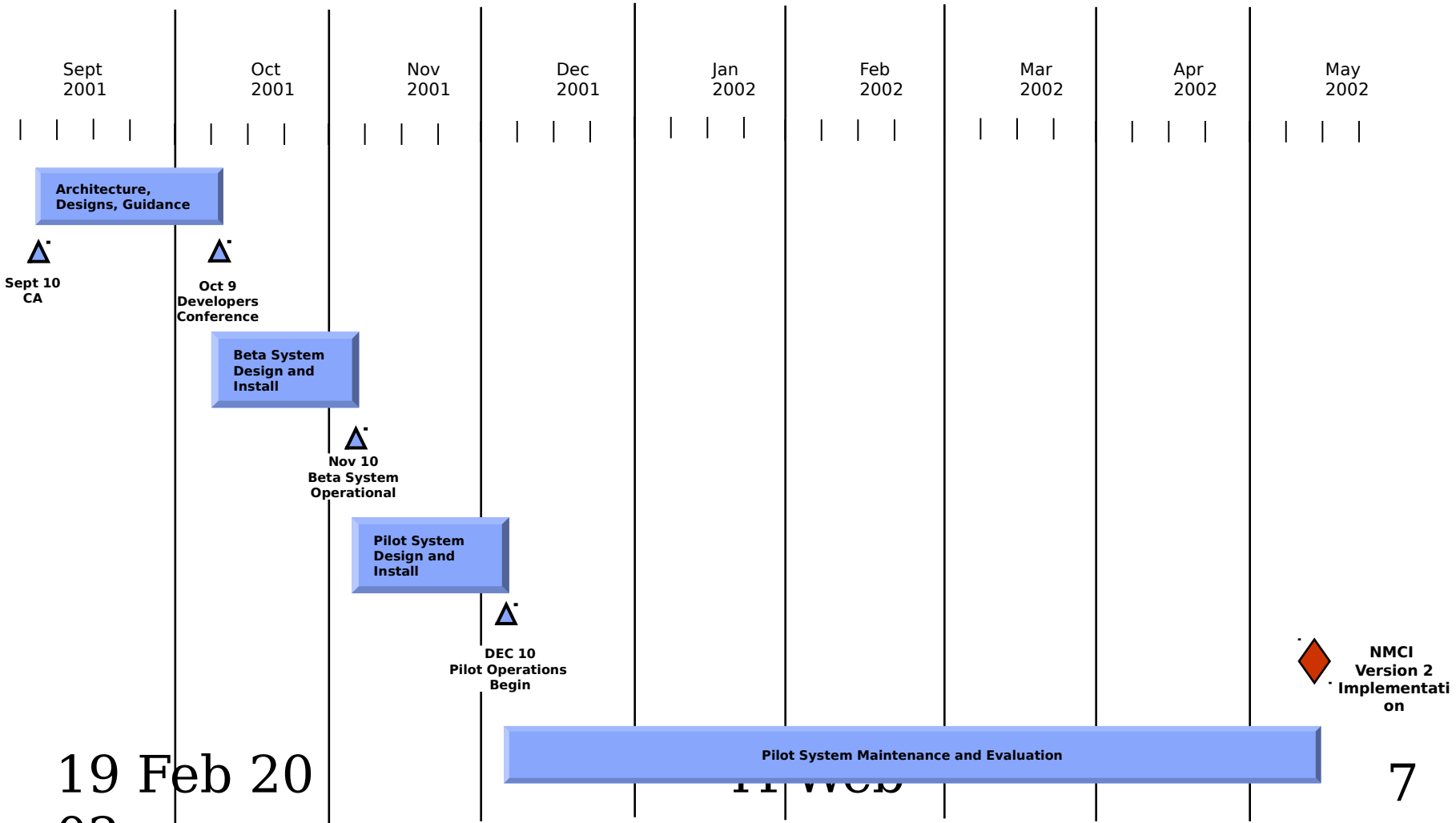
Accessible **via Business and Warfare Operations**

Replicated Data Bases Per Mission Requirements

Authoritative Data Sources and Data *Consolidation*

Common User Access Between Afloat and Shore

30, 60, 90 Day and Beyond



Status to Date

- ✓ Beta labs operational; applications/services testing in progress.
- ✓ Strong participation by the Echelon II development community.
  - ➢ TFWeb technical team implemented to provide dedicated support.
- ✓ Approx 80 applications/services available in pilot portal.
- ✓ Technical architectures validated.
- ✓ Initial security testing completed – no significant vulnerabilities noted.
- ✓ T
  o

http://tfw-opensource.spawar.navy.mil/servlet/portal

Pilot Applications

- **Maintenance (Afloat)**
  - Navy Ships Material Condition Metrics (NAVSEA)
  - Future Availability Schedule (NAVSEA)
  - Maintenance Reference Information (NAVSEA)
  - Maintenance Analysis Hit Parade (NAVSEA)
  - PMS Tech Feedback Report Status (NAVSEA)
  - Status of Configuration Changes (NAVSEA)
  - Configuration & Logistics Vital Statistics (NAVSEA)
  - Automated Shore Interface Transactions (NAVSEA)
  - C4ISR Installation Database (SPAWAR)
  - MIDA (SPAWAR)
- **Logistics & Supply**
  - Navy Logistics Library (NAVSUP)
  - One Touch (NAVSUP)
  - Afloat Residual Asset Mgmt System (MSC)
  - ILS Assessment (SPAWAR)

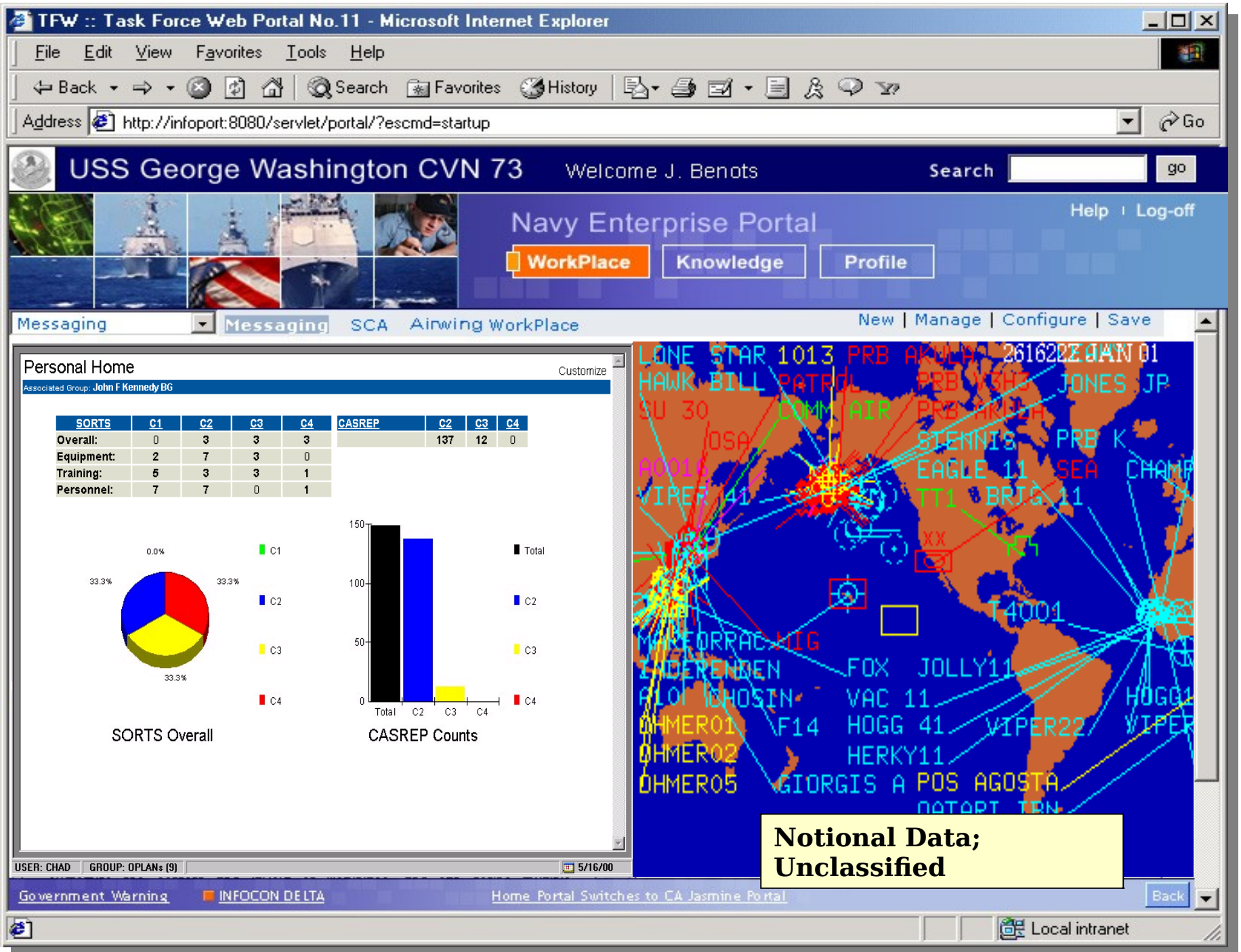
- **Maintenance (Aviation)**
  - Engineering Investigations (NAVAIR)
  - Configuration Mgmt System (NAVAIR)
  - GOSnet (NAVAIR)
  - JATDI (NAVAIR)
  - NALDA (NAVAIR)
  - JDMCIS (NAVAIR)
- **Meteorology**
  - Navy Search & Rescue (CNMOC)
  - Ocean Product Catalog (CNMOC)
  - Navigator of the Navy (CNMOC)
  - Ocean Data Warehouse (CNMOC)
  - NITES (SPAWAR)
- **Personnel**
  - Smart Move (NAVSUP)
  - CCD (NPC)
  - JASS (NPC)
  - ITEMPO (NPC)
  - Manpower Decision Support Tool (SPAWAR)

Pilot Applications

TFWeb

- **C5 & IW**
  - NMPS (NAVSPACECOM)
  - C4I Status Page (CNNOC)
  - EMS (SPAWAR)
  - INM PRO (SPAWAR)
  - N/MC-WP (SPAWAR)
  - Remedy (SPAWAR)
- **Requirements**
- **Weapons**
  - Tomahawk Information System (NAVAIR)
  - Electronic Warfare Library (NWDC)
- **Training**
  - CISN JTA (SPAWAR)
  - IBFT (SPAWAR)
  - CMATT (SPAWAR)
- **Medical**
  - NavHealth Risk Assessment (BUMED)
- **Acquisition**
- **Finance**

- **Intel & Crypto**
  - AMIDSHIPS (ONI)
  - MSC (ONI)
  - NID (ONI)
  - GCCS-M Intel & Imagery (SPAWAR)
  - GCCS-M Imagery Basic Viewing (SPAWAR)
  - Homeland Security (NWDC)
- **Operations & Readiness**
  - IRRI (CLF/CPF)
  - CaS (CLF/CPF)
  - Navy Lessons Learned (NWDC)
  - GCCS-M WEBSKED (SPAWAR)
  - GCCS-M WEBCOP (SPAWAR)
- **Reserves**
  - Forecast (CNRF)
  - NRKO (CNRF)
- **Administration**
  - HQ Web (CNO)


TFW :: Task Force Web Portal No.11 - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://infoport:8080/servlet/portal/?escmd=startup
Go
USS George Washington CVN 73
Welcome J. Benots
Search
go
Navy Enterprise Portal
Help | Log-off
WorkPlace
Knowledge
Profile
Messaging
Messaging
SCA
Airwing WorkPlace
New | Manage | Configure | Save
Personal Home
Customize
Associated Group: John F Kennedy BG
SORTS C1 C2 C3 C4
Overall: 0 3 3 3
Equipment: 2 7 3 0
Training: 5 3 3 1
Personnel: 7 7 0 1
CASREP C2 C3 C4
137 12 0
0.0%
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C1
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C4
SORTS Overall
150
100
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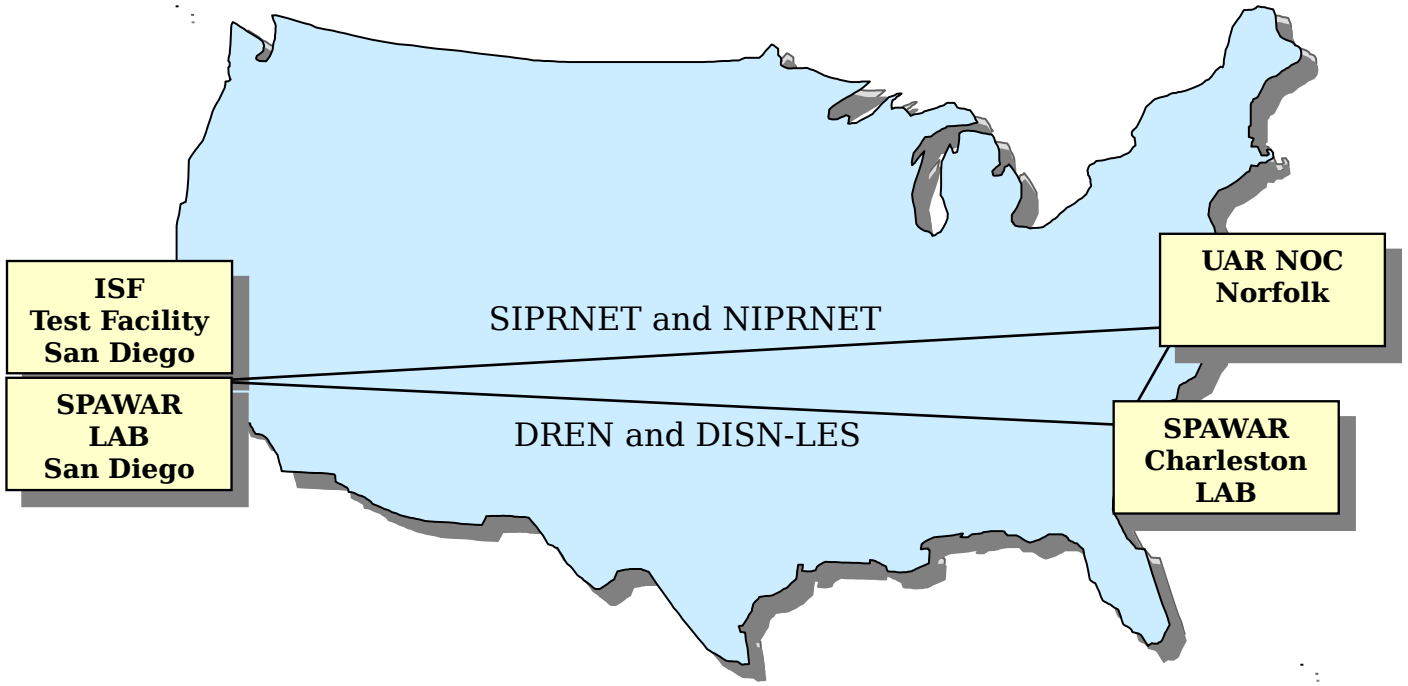
0
Total
C2
C3
C4
CASREP Counts
LONE STAR 1013
HAWK BILL PATROL
SU 30
COMM AIR
OSA
VIPER 41
EAGLE 11
SEA
JONES JP
FOX
JOLLY11
VAC 11
HOGG 41
VIPER22
HERKY11
GIORGIS A POS AGOSTA
Notional Data;
Unclassified
USER: CHAD
GROUP: OPLANs (9)
5/16/00
Government Warning
INFOCON DELTA
Home Portal Switches to CA Jasmine Portal
Back
Local intranet

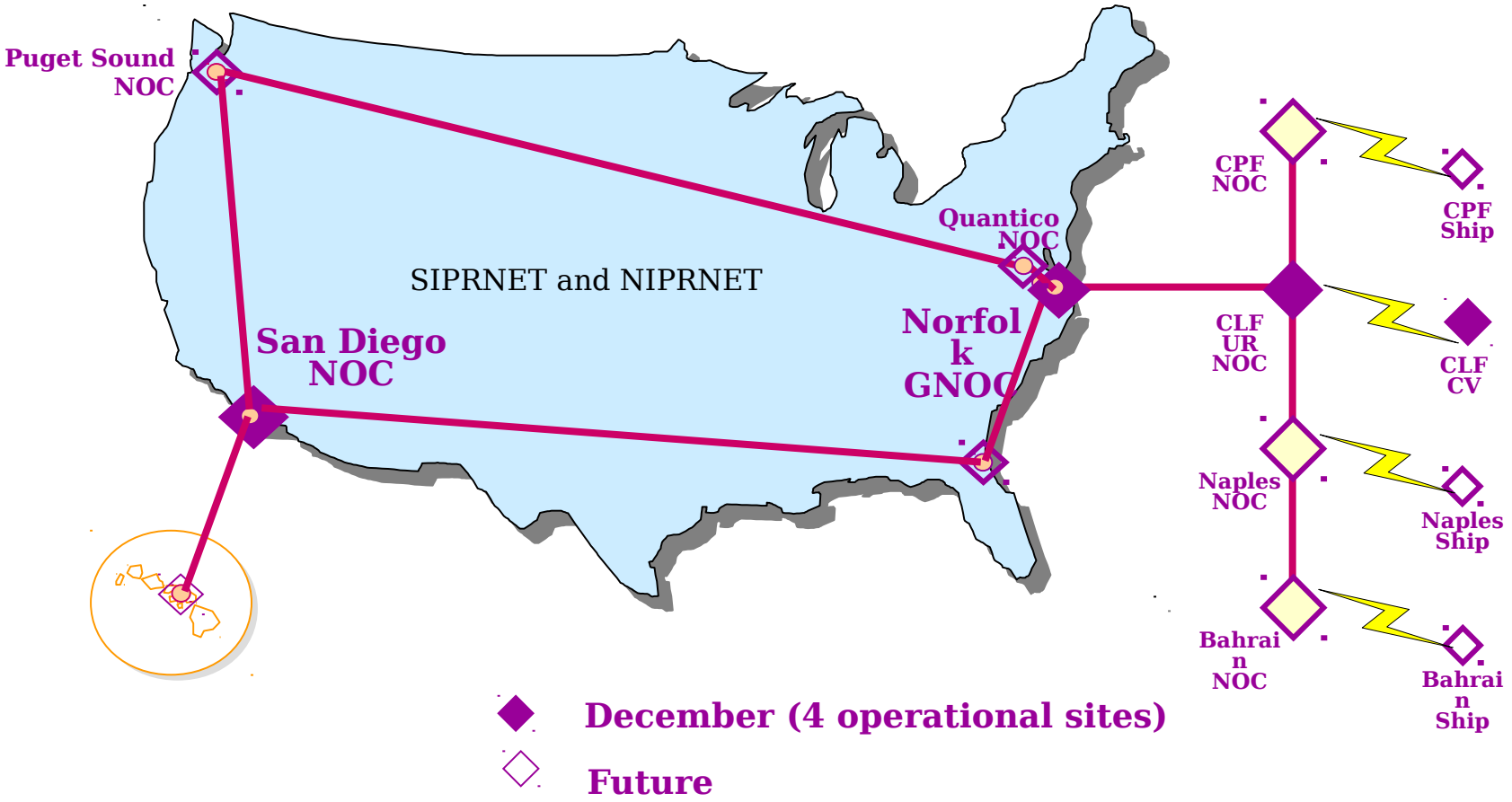
Beta Test Sites Online

TFWeb



Operational Pilot System

TFWeb



Next Steps

- TFWeb Pilot online.
- Continue developing strategic plan for WEN.
- Develop Joint/Coalition access to WEN Services.
- Work DoD/DON PKI initiatives to enable Single Sign On capability for WEN.
- Leverage DON CIO initiatives to improve data management.
- Liaison with USAF and Army to develop interoperability standards for mutual Portal support.

Strategic Planning

TFWeb

- Technical Evolution
  - Evolution of Architecture
- Web Service Governance
  - Governance Migration
  - Functional and/or content managers (SECNAV INST Pending)
  - Resourcing (“The Kill List”)
- Fleet Perspective
  - CONOPS
  - Fleet Requirements & Battle Group Migration
- IT-21 Evolution
  - Shipboard Networks
  - Communications Architecture
- Enterprise
  - Merging of IT-21 & NMCI; O-CONUS
- Data Management
  - Authoritative & Accurate

Report to VCNO
February 2002

Summary of Taskings

TFWeb

NAVADMIN 077/01

- ✓ Implement POA&M to Web Enable the Navy.
- ✓ Recommend architectural modifications and programmatic changes to current DON policies and Information Technology (IT) systems to achieve a web enabled operational capability.
- ❑ Review all operational requirements documents for current and future IT acquisitions to ensure compliance with the Navy Web Enablement effort.
- ❑ Advise CNO on all future and emerging web technologies and provide recommendations for future systems.
- ❑ Maintain and evolve the overarching Navy web blueprint.
- ✓ Work with SYSCOMS and PEO to prioritize and migrate existing IT systems.
- ✓ Issue Navy-wide guidance for existing and new applications.
- ✓ Work with Navy CIO and DON CIO to establish initial requirements for the Navy enterprise portal.
- ✓ Coordinate development and testing of Navy enterprise portal.
- ✓ Work with subordinate commands begin initial migration of systems for portal access.
- ✓ 50 applications migrated to the portal.

Conclusion

- Initial Portal On Schedule
- Fully Operational System is Planned
- OCONUS and Fleet Planning is Beginning
- Aggressive Schedule – Doable with Strong Partnership Across TFW and Echelon IIs

TF Web

Back Up Slides

TF Web Emerging Technologies

From	To
• Proprietary systems	• Internet standard based systems
• Wired	• Wireless
• HTML	• XML
• Limited browser use	• Universal portal use
• Manual use	• Automation
• Limited specific use	• Service Centric Usage
• Diverse message formats	• Common message format (XML)
• Diverse database exchanges	• XML based database exchanges
• Low bandwidth	• More efficient use of bandwidth
• Desktop	• Network appliance / Handheld
• MHz computers	• GHz computers and PDAs

Extensible Markup Language - XML

TFWeb

- Method for Putting Structured Data into Text File
  - Set of rules, guidelines, conventions for structured data
  - Cross-platform, software and hardware independent standard for transmitting information
- Looks Similar to HTML, But…..
  - Strict adherence to the use of tags
  - XML Describes Information; HTML Displays Information
- Text based, but not Meant to be read (machine readable)
  - Text files allow ease of debugging
  - Way to structure, store, and send information
- Conglomeration of Technologies
  - XML Specification, stylesheets, schemas, etc.

XML was designed to store, carry and exchange data

Technical Summary

TFWeb

- Architecture is XML centric
  - Technically Feasible at little risk
  - Leverages commercial evolution
  - Future Web languages will incorporate XML
- Standards based
  - Hardware independent
- Facilitates interoperability Navy wide, Joint/Allied and Coalition

WEN Benefits

TFWeb

- More ubiquitous access to information services
  - Afloat/Ashore
  - Via web browsers
- Improved interoperability
  - Extensive use of XML
  - Separation of data from presentation layer enables support for multiple display devices
- Improved quality of information
  - Establishment of authoritative, central databases supporting similar services across multiple locations
  - Ability to aggregate data from multiple sources
- Reduced Total Costs
  - Software support & hardware costs reduced
  - Configuration management simplified